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Customer Number

Patent  
Case No.: 58392US002**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First Named Inventor: FAN, XUDONG

Application No.: 10/685208

Group Art Unit: 2828

Filed: October 14, 2003

Examiner: Unknown

Title: POROUS MICROSPHERE RESONATORS

**INFORMATION DISCLOSURE STATEMENT**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

2-10-04  
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Signed by: Tom Sanders

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. Copies of any cited foreign patents, non-patent literature, and unpublished US application documents are enclosed. Pursuant to the waiver in the Pre-OG Notice, dated July 11, 2003, copies of US patents and published US patent applications are no longer required and are not enclosed. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

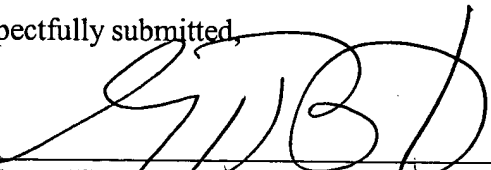
If a first Office Action on the merits has been mailed prior to the mailing date of this document, please charge the fee for consideration of an Information Disclosure Statement set forth in 37 CFR § 1.17(p), and if necessary, please charge any additional fees, or credit any overpayment to Deposit Account No. 13-3723.

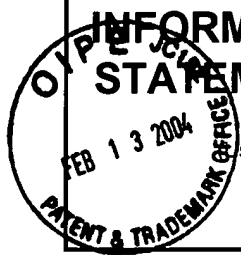
Respectfully submitted,

2/10/04

Date

By:

  
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Substitute for form 1449A/PTO (modified)

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets if necessary)

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**Application Number****10/685208****Filing Date****October 14, 2003****First Named Inventor****Xudong Fan****Art Unit****2828****Examiner Name****Unknown****Attorney Case Number****58392US002****U.S. Patent Documents**

Exam. Init.*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (if known)			
	A1	US- 2002/0079453 A1	06-27-2002	Tapalian et al	
	A2	US- 2002/0097401 A1	07-25-2002	Maleki et al	
	A3	US- 2002/0172457 A1	11-21-2002	Tapalian et al	
	A4	US- 6,490,039 B2	12-03-2002	Maleki et al	
	A5	US- 2002/0192680 A1	12-19-2002	Chan et al	
	A6	US-			

**Foreign Patent Documents**

Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation (Check if yes)
		Ctry. Code	Number-KindCode (If known)				
	B1	WO	01/40757 A2	06-07-2001			
	B2						

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C1	JOHNSON, B.R.; "Theory of Morphology-Dependent Resonances: Shape Resonances and Width Formulas", <i>J. Opt. Soc. Am. A</i> (Feb. 1993); Vol. 10, No. 2; pp. 343-352
	C2	LITTLE, B.E., et al; "Pedestal Antiresonant Reflecting Waveguides for Robust Coupling to Microsphere Resonators and for Microphotonic Circuits", <i>Optics Letters</i> (Jan. 1, 2000); Vol. 25, No. 1; pp. 73-75
	C3	LAINE, J.-P., et al; "Microsphere Resonator Mode Characterization by Pedestal Anti-Resonant Reflecting Waveguide Coupler", <i>IEEE Photonics Technology Letters</i> (Aug. 2000); Vol. 12, No. 8; pp. 1004-1006
	C4	BURLAK, G., et al; "Electromagnetic Oscillations in a Multilayer Spherical Stack", <i>Optics Communications</i> , (1 June 2000); Vol. 180; Elsevier Science B.V.; pp. 49-58
	C5	LAINE, J.-P., et al; "Acceleration Sensor Based on High-Q Optical Microsphere Resonator and Pedestal Antiresonant Reflecting Waveguide Coupler", <i>Sensors and Actuators A</i> (2001); Vol. 93; Elsevier Science B.V.; pp. 1-7
	C6	CHAN, S., et al; "Identification of Gram Negative Bacteria Using Nanoscale Silicon Microcavities", Communications to the Editor, <i>Journal of American Chemical Society</i> (Nov. 2001); Vol. 123, pp. 11797-11798
	C7	BURLAK, G., et al; "Electromagnetic Eigenoscillations and Fields in a Dielectric Microsphere with Multilayer Spherical Stack", <i>Optics Communications</i> (1 Jan. 2001); Vol. 187, Elsevier Science B.V.; pp. 91-105

**\*Examiner:****Date Considered:**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Xudong Fan

Art Unit

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(Use as many sheets if necessary)

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## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C8	CHAN, S., et al; "Nanoscale Silicon Microcavities for Biosensing", <i>Materials Science and Engineering C</i> (2001); Vol. 15, Elsevier Science B.V.; pp. 277-282
	C9	SPILLANE, S.M., et al; "Ultralow-Threshold Raman Laser Using a Spherical Dielectric Microcavity", <i>Letters to Nature, Nature</i> (7 Feb. 2002); Vol. 415, Macmillan Magazines Ltd.; pp. 621-623
	C10	LUGO, J.E., et al; "Porous Silicon Multilayer Structures: A Photonic Band Gap Analysis", <i>Journal of Applied Physics</i> (15 April 2002); Vol. 91, No. 8; pp. 4966-4972
	C11	BURLAK, G., et al; "Transmittance and Resonance Tunneling of the Optical Fields in the Microspherical Metal-Dielectric Structures", <i>Optics Communications</i> (15 May 2002); Vol. 206, Elsevier Science B.V.; pp. 27-37
	C12	VOLLMER, F., et al; "Protein Detection by Optical Shift of a Resonant Microcavity", <i>Applied Physics Letters</i> (27 May 2002); Vol. 80, No. 21; pp. 4057-4059
	C13	KRIOUKOV, E., et al; "Integrated Optical Microcavities for Enhanced Evanescent-Wave Spectroscopy", <i>Optics Letters</i> (Sept. 1, 2002); Vol. 27, No. 17; pp. 1504-1506
	C14	ARMANI, D.K., et al; "Ultra-High-Q Toroid Microcavity on a Chip", <i>Letters to Nature, Nature</i> (27 Feb. 2003); Vol. 421, Nature Publishing Group; pp. 925-928
	C15	TAPALIAN, C., et al; "High-Q Silica Microsphere Optical Resonator Sensors Using Stripline-Pedestal Anti-Resonant Reflecting Optical Waveguide Couplers", <i>Proceedings from SPIE, Photonics West 2003</i> (Jan. 25-31, 2003); Vol. 4969; Laser Resonators and Beam Control VI; Item 4969-30; pp. 11-22

## RELATED U.S. APPLICATIONS - DO NOT PRINT

Examiner's Initials	Serial No.	Filing Date	Title
	10/685,049	10-14-2003	HYBRID SPHERE-WAVEGUIDE RESONATORS

\*Examiner:

Date Considered:

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